

Web Based Distributed Coastal Image Analysis System, Phase I

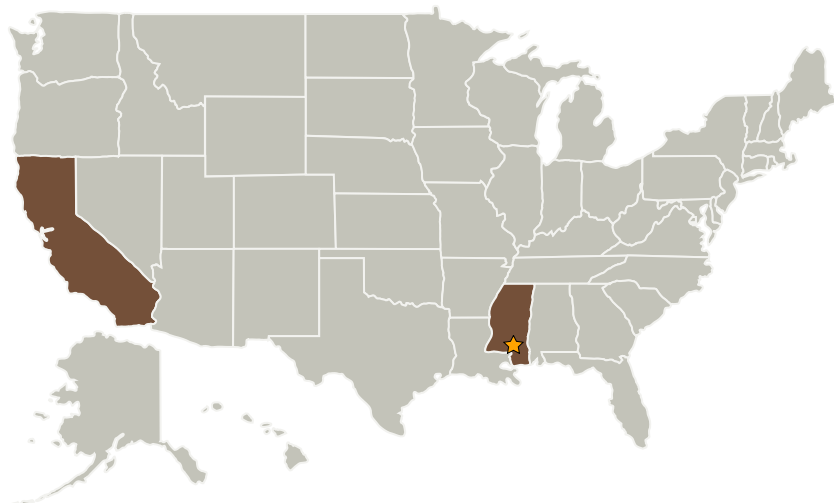
Completed Technology Project (2006 - 2006)



Project Introduction

This project develops Web based distributed image analysis system processing the Moderate Resolution Imaging Spectroradiometer (MODIS) data to provide decision makers or non-specialists with high-quality, environmental scientific information and coastal predictive tools. The system provides the underpinnings for ecosystem-based environmental awareness and management in coastal regions, such as, sea surface temperature, sea surface height and ecological forecasts, etc. The Web Service Oriented Architecture (SOA) is utilized to build remote intelligent components in advanced applications server (JBoss), which implement MODIS image processing to extract useful features to identify events of interest. The AGNC innovative neural network is employed as internal knowledge representation and classification engine to map image feature vector to internal numerical presentation. The initial prototype of the system is given as example demonstration.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Stennis Space Center (SSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★Stennis Space Center(SSC)	Lead Organization	NASA Center	Stennis Space Center, Mississippi
American GNC Corporation	Supporting Organization	Industry Small Disadvantaged Business (SDB), Women-Owned Small Business (WOSB)	Simi Valley, California

Primary U.S. Work Locations

California	Mississippi
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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX10 Autonomous Systems
 - └ TX10.1 Situational and Self Awareness
 - └ TX10.1.3 Knowledge and Model Building